

524,378

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
26 February 2004 (26.02.2004)

PCT

(10) International Publication Number
WO 2004/017325 A1

(51) International Patent Classification⁷: G11B 33/04, 23/03

(21) International Application Number: PCT/IB2003/003353

(22) International Filing Date: 29 July 2003 (29.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 0218858.9 14 August 2002 (14.08.2002) GB

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): PHILPOT, Timothy, J. [GB/GB]; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).

(74) Agent: WILLIAMSON, Paul, L.; Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).

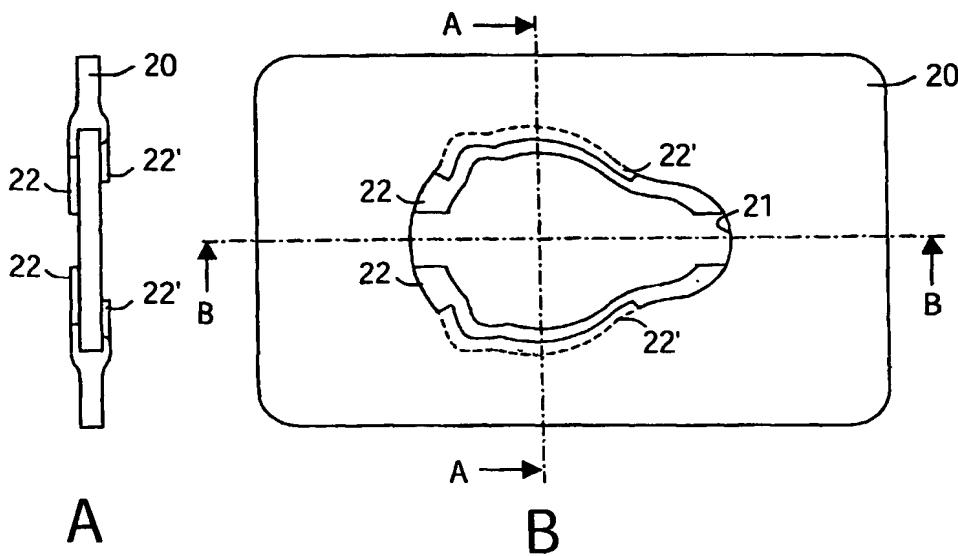
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HOLDER FOR A STORAGE MEDIUM



WO 2004/017325 A1

(57) Abstract: A holder (20) either to which a computer readable storage medium (10) can be detachably attached or in which a computer readable storage medium can be encased is disclosed, the holder having a planar shape and a size corresponding to that of a standard credit card and / or standard business card. In particular, the holder may have a substantially rectangular shape with planar dimensions of 85 mm to 86 mm by 54 to 55 mm.

DESCRIPTION

HOLDER FOR A STORAGE MEDIUM

5 This invention relates to a holder for a computer readable storage medium.

10 Royal Philips Electronics of the Netherlands (hereafter "Philips") is presently developing miniature optical disc drives using blue laser technology which can store up to 1 Gigabyte of data on a single-sided removable, optical disc of just 30mm in diameter. This work is further described in Philips' press release entitled "Philips Develops Technology for Small Form Factor Optical Storage" dated 18 June, 2002 and available from Philips's website at www.newscenter.philips.com.

15 With their integral housing, these "small form factor" optical discs have external dimensions of approximately 30mm x 40mm x 2.5mm and are ideal for storage applications which have size constraints such as in digital cameras, mobile phones, PDAs etc. However, when removed from the disc drive, these discs are sufficiently small as to present a handling problem. Such discs could 20 of course be stored using miniaturised versions of the jewel case, the original case designed by Philips for Compact Discs (CDs), or indeed a miniaturised version one of the many variations on the jewel case that have been developed over recent years.

25 European patent application, publication number EP1103976A1 and PCT patent application, publication number WO01/81206A1 both disclose a holder to which a computer readable storage medium can be detachably attached. In particular, WO01/81206A1 contemplates a holder for a digital business card being a CD which has been cut down or re-sized as to approximate the dimensions of a contemporary European business card.

30

It is an object of the present invention to provide a novel holder, either to which a computer readable storage medium can be detachably attached or

in which a computer readable storage medium can be encased

In accordance with the present invention, such a holder provided having a planar shape, ideally with a thickness of less than 5mm, and a size 5 corresponding to that of a standard credit card and / or standard business card.

Such a holder would enable a small, computer readable storage medium to be stored in a wallet and, in particular, a compartment specifically provided for the safe storage of a credit and / or business card in a wallet as 10 already exists.

At least in the United Kingdom, the standard credit card and / or standard business card has a substantially rectangular shape with planar dimensions of 85 mm to 86 mm by 54 to 55 mm although, of course, credit cards which are commonly made from rigid plastic often have rounded edges.

15 Where a substantially planar shaped, computer readable storage medium is detachably attached to or encased in the holder, the planar area of the holder may be at least 75%, 100% or even 200% greater than the planar area of the computer readable storage medium. Notwithstanding further miniaturisation of computer readable storage media, the prevalence of the 20 credit card and / or the business card means that it will be desirable to have a holder which retains its planar size and shape.

Furthermore, it is conceivable that where a computer readable storage medium is small enough, a holder may be provided whereby at least two such media can be detachably attached.

25

The present invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figures 1A and 1B respectively show in plan and elevation views, the outside of an aforementioned "small form factor" disc with integral casing;

30 Figures 2A and 2B respectively show a section A-A and an elevation view of a holder according to the present invention to which an optical disc casing of the type shown in figures 1A and 1B can be detachably attached;

and

Figure 3 shows an alternative holder according to the present invention.

Figures 1A and 1B show a "small form factor" optical disc 10 with
5 integral casing of the type currently being developed by Philips and having
dimensions of approximately 40mm x 30mm x 2mm.

A holder 20 for storing a disc 10 of the type shown in figures 1A and 1B
is shown in figures 2A and 2B. The holder is substantially planar in shape and
has planar dimensions of 86mm x 55mm, corresponding to the standard size
10 for a European business card. The holder has an aperture 21 corresponding to
the shape of the disc and lips 22, 22' either side of the aperture suitable for
restraining the disc in the aperture.

The holder 20 is plastic and mildly deformable so as to enable the disc
10 to be pressed in to and popped out of the aperture from one side of the
15 holder. The absence of lips along axis B-B which passes through the centre of
the card, parallel with the longest planar dimension encourages the card to
deform along this axis under appropriate stress to facilitate attaching and
detaching a disc to the holder. The lips may themselves be mildly deformable.

Figure 3 shows an alternative holder according to the present invention
20 employing the same fastening arrangement as the holder shown in figures 2A
and 2B but able to detachably attach discs of the type shown in figures 1A and
1B.

Whilst the aforementioned holders expose both sides of the disc to the
environment, it would of course be possible to fully encase a disc of the type
25 shown in figures 1A and 1B in a jewel type case or any other type of case
having a size corresponding to that of a standard credit card and / or standard
business card.

Also, whilst the above holder is described in the context of an optical
disc storage medium, it will be appreciated that the invention is equally
30 applicable to other types of storage media including magnetic disc storage and
solid state storage.

CLAIMS

1. A holder (20) either to which a computer readable storage medium (10) can be detachably attached or in which a computer readable storage medium can be encased, the holder having a planar shape and a size corresponding to that of a standard credit card and / or standard business card.
2. A holder according to claim 1 having a substantially rectangular shape with planar dimensions of 85 mm to 86 mm by 54 to 55 mm.
3. A holder according to claim 1 having a thickness of less than 5mm.
4. A holder according to claim 1 to which a substantially planar shaped, computer readable storage medium can be detachably attached, wherein the planar area of the holder is at least 75% greater than the planar area of the computer readable storage medium
5. A holder according to claim 4 wherein the planar area of the holder is at least 100% greater than the planar area of the computer readable storage medium.
6. A holder according any preceding claim to which at least two computer readable storage media can be detachably attached

1/1

FIG.1A

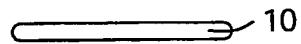


FIG.1B

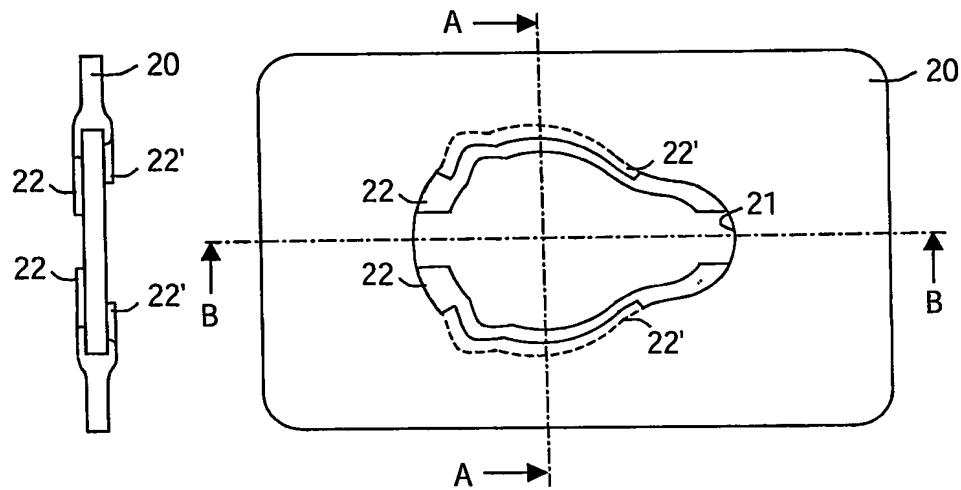
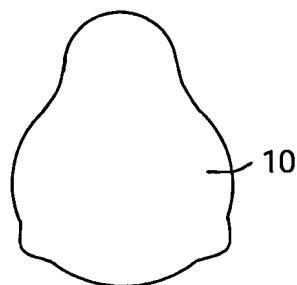
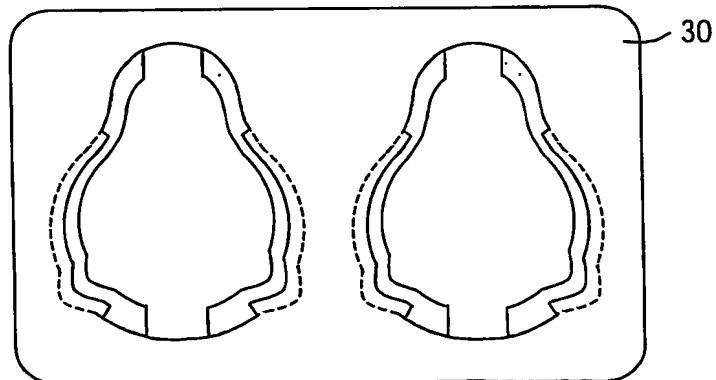


FIG.2A

FIG.2B



INTERNATIONAL SEARCH REPORT

PCT/03/03353

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G11B33/04 G11B23/03

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category ^a	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 085 514 A (INTERNAT CONSULTING S R L) 21 March 2001 (2001-03-21) column 2, paragraph 14 -column 6, paragraph 37 abstract; figures ---	1-6
X	EP 1 083 563 A (INTERNAT CONSULTING S R L) 14 March 2001 (2001-03-14) column 2, paragraph 12 -column 5, paragraph 35; figures ---	1-6
X	NL 9 000 256 A (JAN ESSEBAGGERS) 2 September 1991 (1991-09-02) page 2, line 1 -page 3, line 19; figures ---	1-6
X	WO 01 04905 A (SCHOPPE KARL HEINZ) 18 January 2001 (2001-01-18) page 6, line 3 -page 7, line 33; figures ---	1-6
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the international search report

12 November 2003

02/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Declat, M

INTERNATIONAL SEARCH REPORT

PCT/03/03353

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 199 32 759 A (SEMPRUCH ROMAN) 14 September 2000 (2000-09-14) abstract; figures column 1, line 55 -column 2, line 12 ---	1-6
X	US 4 903 256 A (NAKAHARA TAKASHI) 20 February 1990 (1990-02-20) column 4, line 5 - line 68 abstract; figures ---	1-6
X	DE 195 41 306 A (JACOB RAINER) 15 May 1996 (1996-05-15) abstract; claims 8-11; figure 4 column 8, line 11 - line 23 ---	1-6
P,X	US 2002/157975 A1 (TSUNEMATSU TAKAHASI) 31 October 2002 (2002-10-31) page 1, paragraph 16 -page 2, paragraph 26 abstract; figures ---	1-6
A	WO 01 11625 A (SAPIR RON ;ATOP INNOVATION S P A (IT); JARACH ANDREA (IT)) 15 February 2001 (2001-02-15) abstract; figures ---	1-6
A	DE 297 09 648 U (OTTERSTEIN KARL) 11 December 1997 (1997-12-11) claims 1-11; figures -----	1-6

INTERNATIONAL SEARCH REPORT

PCT/EP 03/03353

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1085514	A	21-03-2001	EP CA	1085514 A1 2317503 A1		21-03-2001 10-03-2001
EP 1083563	A	14-03-2001	EP CA	1083563 A1 2317512 A1		14-03-2001 10-03-2001
NL 9000256	A	02-09-1991		NONE		
WO 0104905	A	18-01-2001	DE DE AU BG BR CA CN CZ WO DE EA EE EP HU JP LT LV NO SI SK TR TW ZA	19932340 A1 29917105 U1 6682700 A 106399 A 0012374 A 2373627 A1 1378693 T 20020009 A3 0104905 A1 10081989 D2 3714 B1 200200015 A 1206774 A1 0201799 A2 2003504788 T 2002007 A ,B 12817 A ,B 20020081 A 20771 A 52002 A3 200200042 T2 470939 B 200201000 A		15-02-2001 23-12-1999 30-01-2001 29-12-2002 28-05-2002 18-01-2001 06-11-2002 15-05-2002 18-01-2001 13-03-2003 28-08-2003 15-04-2003 22-05-2002 28-09-2002 04-02-2003 25-06-2002 20-04-2002 08-01-2002 30-06-2002 04-06-2002 21-06-2002 01-01-2002 05-02-2003
DE 19932759	A	14-09-2000	DE DE	29903974 U1 19932759 A1		22-07-1999 14-09-2000
US 4903256	A	20-02-1990	JP JP DE DE EP	63228479 A 63106976 A 3750420 D1 3750420 T2 0265274 A2		22-09-1988 12-05-1988 29-09-1994 26-01-1995 27-04-1988
DE 19541306	A	15-05-1996	DE	19541306 A1		15-05-1996
US 2002157975	A1	31-10-2002	JP	2002326695 A		12-11-2002
WO 0111625	A	15-02-2001	WO IT AU AU EP WO	0111624 A1 RM20000121 U1 5063899 A 6469400 A 1200958 A1 0111625 A1		15-02-2001 10-12-2001 05-03-2001 05-03-2001 02-05-2002 15-02-2001
DE 29709648	U	11-12-1997	DE	29709648 U1		11-12-1997